

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 12179371	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/AU2003/001325	International Filing Date (day/month/year) 8 October 2003	Priority Date (day/month/year) 8 October 2002
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G06T 1/00, H04N 1/387		
Applicant BODY ON LINE PTY LTD et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of 5 sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of 4 sheet(s).	
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input checked="" type="checkbox"/> Certain observations on the international application	

Date of submission of the demand 7 May 2004	Date of completion of the report 17 January 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer DEREK BARNES Telephone No. (02) 6283 2198

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/AU2003/001325

I. Basis of the report**1. With regard to the elements of the international application:***

- ☐ the international application as originally filed.
- ☒ the description, pages 1 to 21, as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☒ the claims, pages , as originally filed,
pages , as amended (together with any statement) under Article 19,
pages , filed with the demand,
pages 22 to 25, received on 14 December 2004 with the letter of 14 December 2004
- ☒ the drawings, pages 1/9 to 9/9, as originally filed,
pages , filed with the demand,
pages , received on with the letter of
- ☐ the sequence listing part of the description:
pages , as originally filed
pages , filed with the demand
pages , received on with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under Item 1 and annexed to this report

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
- ☐ paid additional fees.
- ☐ paid additional fees under protest.
- ☐ neither restricted nor paid additional fees.

2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
- ☒ not complied with for the following reasons:

The international application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept. In coming to this conclusion the International Searching Authority has found that there are different inventions as follows:

1. Claims 1-23 are directed to a method and apparatus allowing medical practitioners to make demonstrations using a processing system. It is considered that the features of, selecting a disease or condition in accordance with an input command from the medical practitioner, obtaining images in accordance with the selection from predetermined image data stored in a store, the image data defining one or more modelled images, comprises a first "special technical feature".
2. Claims 24-32 are directed to apparatus for handling medical records. It is considered that the features of a database, and a processor to determine the medical records and store them in the database, wherein the medical records include an image and one or more annotations, the records being generated by a second processing system which obtains image data in response to an input command, comprises a second "special technical feature".

Since the abovementioned groups of claims do not share any of the technical features identified, a "technical relationship" between the inventions, as defined in PCT rule 13.2 does not exist. Accordingly the international application does not relate to one invention or to a single inventive concept, a priori.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
- ☐ the parts relating to claims Nos.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-32	YES
	Claims -	NO
Inventive step (IS)	Claims 1-32	YES
	Claims -	NO
Industrial applicability (IA)	Claims 1-32	YES
	Claims -	NO

2. Citations and explanations (Rule 70.7)**CITATIONS**

D1: Derwent Abstract Accession No. 2001-509198/56, Class P31:S05, JP 2001-195610 A (TOSHIBA KK) 19 July 2001 and Machine Translation of the full copy of patent specification JP 2001-195610 A (TOSHIBA KK) 19 July 2001, See paragraphs [0003], [0028] to [0036]

D2: WO 2002/024049 A2 (SUPER DIMENSION LTD) 28 March 2002, See whole document

NOVELTY (N) and INVENTIVE STEP (IS)

Document D1 discloses a medical imaging system and method whereby an operator can add an annotation on an image (all types) for purposes such as planning an operation, for informed consent of the patient, for explanation to a third person or as a comment. The annotation can take the form of text or graphics and the annotation and its location on the image is stored with the image data. The operator chooses a particular image data set among a number of images and annotates the image using an image processing system, a pointing device such as a mouse or trackball, and a keyboard.

Document D1 does not disclose the additional features of a processing system which selects a disease or condition in accordance with an input command received from a medical practitioner and obtains image data in accordance with the selection from predetermined image data defining one or more modelled images stored in a store.

Therefore independent claims 1 and 16 which define these features and their appended claims 2-15 and 17-23 are novel and have an inventive step.

Document D2 discloses a system and method for archiving medical images. The system acquires and stores images of the body of a patient and facilitates the retrieval of images at a later time and different location for use in medical procedures. The images include an image and an associated annotation. It is inherent in the document that the images would be stored in some sort of database and would be associated with the particular patient who was imaged.

Document D2 does not disclose an apparatus for handling medical records which obtains images in accordance with an input command from a medical practitioner, presents the images on a display and presents annotations on the display in response to one or more input commands.

Therefore independent claim 24 and its appended claims 25-32 are novel and have an inventive step.

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 24-30 lack clarity because:

- a) in claim 24 at line 5 the meaning of "the processor being adapted, and," is not clear.
- b) in claim 25 the meaning of "the second processing system is the processing system" is not clear.
- c) in claim 26 it is not clear which processing system is being referred to at line 1.
- d) in claim 27 there is no antecedent for "the request" at lines 1 and 2.
- e) in claims 28 to 30 there is no clear meaning for the phrase "Apparatus according to any one of the claim 24".
- f) in claim 29 it is not clear what part of the processing system according to any one of claims 16 to 22 is formed by the processing system.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

- 1) A method of allowing medical practitioners to demonstrate the effects of a medical condition or a treatment to an individual using a processing system, the method including causing the processing system to:
 - 5 a) Obtain image data in accordance with an input command received from the medical practitioner, the image data defining one or more images;
 - b) Present the one or more of the images on a display; and,
 - c) Present annotations on the display in response to one or more input commands.
- 10 2) A method according to claim 1, the image data defining one or more image sequences, the method including causing the processing system to:
 - a) Present one or more of the images in the image sequence in response to an input commands;
 - b) Select a respective one of the images in response to an input command; and,
 - c) Present image annotations for the selected image.
- 15 3) A method according to claim 1 or claim 2, the annotations including at least one of:
 - a) Text annotations; and,
 - b) Drawings annotations.
- 4) A method according to any one of the claims 1 to 3, the method including causing the processing system to superimpose the annotations on the respective image.
- 20 5) A method according to any one of the claims 1 to 4, the method including causing the processing system to store the annotations in a store in accordance with an input command.
- 6) A method according to claim 5, the stored annotations forming part of the individual's medical records.
- 25 7) A method according to claim 6, the store being coupled to one or more processing systems by the communications network, the method including allowing selected medical practitioners to access the patients medical records via communications network using a respective one of the processing systems.
- 8) A method according to any one of the claims 5 to 7, when dependent on claim 4, the
 - 30 method including causing the processing system to store the annotations together with at least an indication of the respective image.
- 9) A method according to any one of the claims 5 to 8, the method including causing the processing system to store the annotation as a respective image.

- 10) A method according to any one of the claims 5 to 9, the method including causing the processing system to store additional information together with the annotations, the additional information including at least one of:
- a) The patient identity;
 - 5 b) The medical practitioner identity;
 - c) A diagnosis; and,
 - d) A time and/or date indication representative of when the annotations were created.
- 11) A method according to any one of the claims 1 to 10, the processing system being coupled to one or more end stations via a communications network, the method including causing the processing system to:
- 10 a) Receive input commands from the end stations via the communications network; and,
 - b) Present the image(s) and the annotations to the medical practitioner using the end station.
- 12) A method of allowing medical practitioners to demonstrate the effects of a medical condition, or a treatment to an individual, the method being substantially as hereinbefore described.
- 13) A processing system for allowing medical practitioners to demonstrate the effects of a medical condition, or a treatment to an individual, the processing system including:
- 20 a) A store for storing image data, the image data defining one or more images;
 - b) An input for receiving input commands from the medical practitioner;
 - c) A display for displaying the images; and,
 - d) A processor, the processor being adapted to:
 - 25 i) Present one or more of the images on the display in response to an input command; and,
 - ii) Present annotations on the display in response to one or more input commands.
- 14) A processing system according to claim 13, the processing system being adapted to store the annotations in accordance with an input command.
- 15) A processing system according to claim 14, the processing system being coupled to a database, the processing system being adapted to store the annotations in the database.
- 30 16) A processing system according to claim 15, the processing system being coupled to the database via a communications network.

- 17) A processing system according to any one of the claims 13 to 16, the processor and the store being provided at a base station, the base station being coupled to one or more remote end stations via a communications system, the input and the display being formed from the end stations.
- 5 18) A processing system according to any one of the claims 13 to 17, the processing system being adapted to perform the method of any of the claims 1 to 12.
- 19) A processing system for allowing medical practitioners to demonstrate the effects of a medical condition, or a treatment to an individual, the processing system being substantially as hereinbefore described.
- 10 20) A computer program product for allowing medical practitioners to demonstrate the effects of a medical condition, or a treatment to an individual, the computer program product including computer executable code which when executed on a suitable processing system causing the processing system to perform the method of any one of the claims 1 to 12.
- 15 21) Apparatus for handling medical records, the records including a representation of a medical condition or treatment to be applied to an individual, the apparatus including:
- a) A database; and,
 - b) A processor coupled to the database, the processor being adapted to:
 - 20 i) Determine the medical records; and,
 - ii) Store the medical records in the database.
- 22) Apparatus according to claim 21, the processing system being coupled to one or more end stations via a communications network, the processor being adapted to:
- a) Receive a medical record request from the end station; and,
 - b) Transfer a selected medical record to the end station in accordance with the request.
- 25 23) Apparatus according to claim 22, the request including an indication of the medical practitioner making the request, the processor being further adapted to:
- a) Compare the practitioner indication to practitioner data stored in a store, the practitioner data indicating authorisations for the viewing of medical records;
 - b) Determine if the medical practitioner is authorised to view the selected medical record; and
 - 30 c) Transferring the medical record in accordance with a successful determination.

- 24) Apparatus according to any one of the claim 21 to 23, the medical records including an image together with one or more associated annotations, the medical record being generated in accordance with the methods of any one of the claims 1 to 12.
- 25) Apparatus according to any one of the claim 21 to 24, the processing system forming
5 part of a processing system according to any one of the claims 13 to 19.
- 26) Apparatus according to any one of the claim 21 to 25, the database being coupled to one or more processing systems by a communications network, thereby allowing the selected medical practitioners to access the patients medical records via the database using the processing systems.
- 10 27) Apparatus according to claim 26, the processing systems being processing systems according to any one of the claims 13 to 19.
- 28) Apparatus for handling medical records, the apparatus being substantially as hereinbefore described.